

Serial No. 09/687,662
Attorney Docket No.: SEDN/247CIP4
Page 7

REMARKS

This response is intended as a full and complete response to the Office Action mailed February 8, 2006. Claims 1-21 are currently pending. Applicants traverse all of the rejections in the Office Action and respectfully request reconsideration and passage of the claims to allowance for the following reasons.

Claims Patentable over Fries/Aristides under §103

The Office Action rejected claims 1-2, 6-13 and 16-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. US 2002/0035728 A1 for Fries ("Fries") in view of U.S. Patent No. 5,657,072 to Aristides ("Aristides").

According to MPEP §2143, to establish a *prima facie* case of obviousness under §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaæck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action failed to establish a *prima facie* case of obviousness, because the combination of Fries and Aristides fails to teach or suggest all the claim elements and both Fries and Aristides teach away from the claimed invention. For example, the combination fails to teach or suggest sending only the guide portion of an IPG page having both a guide and a background portion, as claimed.

Claim 1 recites, *inter alia*, "broadcasting continually, from a head-end to a terminal, a fraction of a plurality of available interactive program guide (IPG) pages",

437314-1

Serial No. 09/687,662
Attorney Docket No.: SEDN/247CIP4
Page 8

"encoding, by the head-end, only a guide portion of the requested IPG page using a temporal slice persistence encoding scheme, the requested IPG page including the guide portion and a background portion", and "demand-casting, by the head-end to the terminal, the encoded guide portion a limited number of times in response to receiving the request message". The combination of Fries and Aristides fails to teach or suggest these claim elements.

Fries fails to teach or suggest the claimed continual broadcasting of a fraction of the available IPG pages to the terminal. By contrast, Fries teaches a "pre-peak transmitting scheme" whereby a set of program data is transmitted "during the off-demand, pre-peak time". Thus, Fries is not continually broadcasting a fraction of the available IPG pages to the terminal as claimed.

Fries teaches away from the claimed demand-casting of only the guide portion of the IPG page by disclosing delivering whole, still images of pages of information. By contrast, in Fries, "the cable head-end 22 outputs a plurality of still images, or information pages" and that "each page image consists of a single frame MPEG2 video sequence". (Fries, col. 2, paragraphs [0032] and [0033]). Fries fails to teach or suggest the claimed encoding only the guide portion of the requested IPG page, because in Fries each page is a still image that does not have the claimed guide and background portions.

Fries is generally directed to delivering "a stream of MPEG still images, or image pages, to a cable user" and associated with the image pages "is a set of meta-data describing links to other pages along with a limited set of side effects and actions", where the "user can select and activate the links with a hand-held remote control, thereby interacting with the pages of information displayed on the television screen." (Fries, page 2, paragraph [0028]). The "meta-data for a page consists of four tables identified herein as the page element table, the link table, the focus table, and the form table." (Fries, page 12, paragraph [0132]). The claimed invention has nothing to do with the meta-data of Fries for linking pages and providing focus on a

437314-1

Serial No. 09/687,662
Attorney Docket No.: SEDN/247CIP4
Page 9

particular part of the page. Clearly, meta-data in Fries is different than the guide portion of an IPG page, as claimed. The claimed invention is generally directed toward the efficient delivery of the IPG using demand-cast, not how to link pages or focus on a part of a page, as in Fries.

Aristides also teaches away from the claimed invention. Aristides addresses the bottleneck problem of high demand for programs with "slightly staggered pointers to the same video data stream beginning at the same memory location". (Aristides, col. 5, lines 40-57). Also, in Aristides program data is transmitted during off-demand times prior to peak times and not in response to any request, unlike the claimed invention. (Aristides, col. 7, lines 40-48). Aristides also teaches away from the claimed invention by disclosing a cache of program data stored at the STB to be used during peak times, unlike the claimed invention. (Aristides, col. 8, lines 44-62).

The claimed invention has many advantages over the prior art. The claimed invention efficiently utilizes the available bandwidth by continually transmitting only a small fraction of all IPG pages via broadcast. For example, IPG pages for the current time slots and possibly the near look-ahead and/or prime time periods may be continually transmitted. Program guide pages for other time periods are transmitted as requested by viewer via demand-cast. Because the requested IPG pages are transmitted a limited number of times as a demand-cast in response to a viewer's request, the head-end does not need to track the request or the demand-cast. Once processed, the head-end can simply remove the request. This greatly simplifies the management for demand-cast. Thus, the bandwidth required to support demand-cast is significantly reduced, because each requested IPG page is only sent a limited number of times (e.g., only once). This allows a distribution system with a given capacity to support a larger number of terminals and further reduces the likelihood of blockage. In addition, the demand-cast system reduces the management required at the head-end, because each request is processed as it is received and the head-end does not need to keep track of the status of demand-casted IPG pages.

437314-1

Serial No. 09/687,662
Attorney Docket No.: SEDN/247CIP4
Page 10

Therefore, claim 1 is patentable over the combination of Fries and Aristides under §103. Applicants respectfully request that the rejection be withdrawn.

Claims 2 and 6-12 depend, directly or indirectly, from claim 1 and, thus, inherit the patentable subject matter of claim 1, while adding or further defining elements. Therefore, claims 2 and 6-12 are also patentable over the combination of Fries and Aristides under §103.

Claim 13 recites, *inter alia*, "sending, from the terminal to the head-end, a request message for a requested IPG page, the requested IPG page not being one of the continually broadcast IPG pages; receiving, at the terminal from the head-end, a transmission of a guide portion of the requested IPG page, wherein the guide portion of the requested IPG page is transmitted a limited number of times in response to the request message; and "regenerating the requested IPG page from the received transmission, the requested IPG page including the guide portion and a background portion". For at least the same reasons given above with respect to claim 1, claim 13 is also patentable over the combination of Fries and Aristides under §103.

Claims 16-18 depend, directly or indirectly, from claim 13 and, thus, inherit the patentable subject matter of claim 13, while adding or further defining elements. Therefore, claims 16-18 are also patentable over the combination of Fries and Aristides under §103.

Claim 19 recites, *inter alia*, "video encoder operative to encode a plurality of continually broadcast interactive program guide (IPG) pages and a guide portion of a requested IPG page using a temporal slice persistence encoding scheme, and to respectively generate a broadcast guide stream and a requested guide stream, the continually broadcast IPG pages being a fraction of a plurality of available IPG pages, the guide portion of the requested IPG page not being one of the continually

437314-1

Serial No. 09/687,662
Attorney Docket No.: SEDN/247CIP4
Page 11

broadcast IPG pages". For at least the same reasons given above with respect to claim 1, claim 19 is also patentable over the combination of Fries and Aristides under §103.

Claim 20 depends from claim 19 and, thus, inherits the patentable subject matter of claim 19, while adding or further defining elements. Therefore, claim 20 is also patentable over the combination of Fries and Aristides under §103.

Claims Patentable over Fries/Aristides/Rocher under §103

The Office Action rejected claims 3-5, 14-15, and 21 under 35 U.S.C. §103(a) as being unpatentable over Fries and Aristides, in view U.S. Patent No. 3,754,211 to Rocher ("Rocher").

The Office Action failed to establish a *prima facie* case of obviousness, because the combination of Fries, Aristides, and Rocher fails to teach or suggest all the claim elements of claim 1. For example, the combination fails to teach or suggest sending only the guide portion of an IPG page having both a guide and a background portion, as claimed. As discussed above, the combination of Fries and Aristides fails to disclose at least these elements. In addition, Rocher fails to disclose at least these elements.

Claims 3-5 depend, directly or indirectly, from claim 1 and, thus, inherit the patentable subject matter of claim 1, while adding or further defining elements. Therefore, Claims 3-5 are also patentable over the combination of Fries, Aristides, and Rocher under §103.

Claims 14-15 depend, directly or indirectly, from claim 13 and, thus, inherit the patentable subject matter of claim 13, while adding or further defining elements. Therefore, claims 14-15 are also patentable over the combination of Fries, Aristides, and Rocher under §103.

437314-1

Serial No. 09/687,662
Attorney Docket No.: SEDN/247CIP4
Page 12

Claim 21 depends from claim 19 and, thus, inherits the patentable subject matter of claim 19, while adding or further defining elements. Therefore, claim 21 is also patentable over the combination of Fries, Aristides, and Rocher under §103.

437314-1


Serial No. 09/687,662
Attorney Docket No.: SEDN/247CIP4
Page 13

CONCLUSION

For the foregoing reasons, Applicants respectfully request reconsideration and passage of the claims to allowance. If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Lea A. Nicholson or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: May 8, 2006



Lea A. Nicholson
Registration No. 48,346
Attorney for Applicants

PATTERSON & SHERIDAN, LLP
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702
Telephone: 732-530-9404
Facsimile: 732-530-9808